

What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction

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SUMMARY

Background. General practice is currently experiencing a large number of developments. Studies of patient satisfaction are required to guide the changes that many general practitioners are introducing.

Aim. A study set out to examine the characteristics of general practices that influence patient satisfaction.

Method. In 1991–92, a surgery satisfaction questionnaire of demonstrated reliability and validity was administered to 220 patients in each of 89 general practices. A further questionnaire completed by a member of practice staff collected information about practice characteristics including total list size, number, age and sex of practice partners, training status, fundholding status, presence of a practice manager and whether there was a personal list system. Stepwise multiple regression analyses were undertaken to identify those practice characteristics that influenced patient satisfaction.

Results. The mean of the response rates of patients completing questionnaires in each practice was 82%. An increasing total list size of patients registered with practices was associated with decreasing levels of general satisfaction and decreased satisfaction with accessibility, availability, continuity of care, medical care and premises. The presence of a personal list system was associated with increased levels of general satisfaction and increased satisfaction with accessibility, availability, continuity of care and medical care. Training practices were associated with decreased levels of general satisfaction and decreased satisfaction with availability and continuity of care.

Conclusion. The patients of practices in this study preferred smaller practices, non-training practices and practices that had personal list systems. Practice organization should be reviewed in order to ensure that the trend towards larger practices that provide a wider range of services does not lead to a decline in patient satisfaction. General practitioners should have personal list systems and consider the creation of several personal teams within the practice consisting of small numbers of doctors, receptionists and practice nurses.

Keywords: general practitioner services; practice organization; patient satisfaction.

Introduction

PATIENTS' perceptions of the care they receive is of growing interest both to health professionals and managers. In manufacturing and service industries quality is frequently defined as meeting or exceeding the requirements of customers.^{1,2} Berwick and colleagues have argued that quality management be introduced into the National Health Service, defining quality as 'the ability to meet the needs of customers'.³ Although the proportion of general practices that have begun to adopt quality management programmes is relatively small, all have been encouraged to become more aware of the perceptions of their patients. In the 1990 contract for general practitioners, family health services authorities were required to undertake surveys of the opinions of patients.⁴ Moreover, the Department of Health's instructions for the creation of medical audit advisory groups included the recommendation that such groups should take into account findings about patient opinion from surveys organized by the local family health services authorities.⁵ The patient's charter for primary care, announced in 1992, was a further stimulus for practice teams to begin to regard their patients as users or even customers.⁶ Although only limited evidence is available about the number of practices that have consulted patients about their views of their care, some medical audit advisory groups report that surveys of patient satisfaction are relatively popular forms of data collection for audit.^{7,8}

Surveys of patient opinion about general practice are not new, for example the influential studies by Cartwright were undertaken as long ago as 1964 and 1977.^{9,10} However, there have been many changes in general practice in the intervening period and the views of patients may also have changed. Studies of specific aspects of care have investigated patients' views of the difficulties they may encounter in gaining access to care¹¹ and satisfaction with consultation length,¹² out-of-hours care¹³ and continuity of care.¹⁴ Studies of this nature are valuable in identifying features of care that patients would like improved, but in order to ensure that general practice as a whole meets the requirements of patients it is necessary to identify those features that are of most importance to patients. Therefore, studies are needed that review multiple aspects of care, but many that have been undertaken have produced conflicting findings. A recent survey of this type indicated that patients were particularly concerned about the availability of appointments.¹⁵ In another survey that included a range of topics, dissatisfaction was greatest with the level of information received from general practitioners, consultation length and ease of discussing personal issues with the doctor.¹⁶

The pace of development and change in general practices has accelerated since the 1990 contract for general practitioners⁴ and the introduction of fundholding as part of the NHS reforms.¹⁷ For example, there is evidence to show that general practitioners have experienced an increase in workload¹⁸ and that practices are now more likely to employ nurses and offer more clinics.¹⁹ General practitioners who are responding to these developments by introducing changes to their practices need information about the preferences of patients. If changes are implemented in ignorance of patient requirements there is a risk that patient satisfaction will

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decrease rather than increase.²⁰ The problem is exacerbated because the meaning of satisfaction is often difficult to determine, and study methods are frequently inadequate.^{21,22} Tests of the reliability and validity of questionnaires are almost invariably omitted and the findings may only reflect response acquiescence. Studies of patient satisfaction with general practice that employ sound methods are urgently required.

Between 1991 and 1992 a survey of patient opinion was offered as an audit to practices in South Western Region Health Authority (Avon, Cornwall, Devon, Gloucestershire and Somerset). The questionnaires used in this survey were the surgery satisfaction questionnaire and the consultation satisfaction questionnaire which have been shown to have satisfactory reliability (test-retest and internal consistency) and construct validity.²³ This study reports the findings from the surgery satisfaction questionnaire.

Method

Surgery satisfaction questionnaire

The questionnaire comprises 26 questions or statements to which the respondent is asked to indicate agreement on a five-point scale from strongly agree to strongly disagree. The questions address six main issues or components: general satisfaction, accessibility (ease of getting to the surgery), availability (appointments with doctors, telephone service), continuity of care (seeing the same general practitioner), medical care (the doctors are careful and do not make mistakes) and premises (comfortable, up to date). These scales were developed through a series of pilot tests using psychometric techniques.²⁴ For each question the minimum score is one (dissatisfaction) and the maximum is five (satisfaction). The component scores are calculated by summing the scores of the questions in each component and converting the results to a zero to 100 scale, the minimum score being zero (complete dissatisfaction) and the maximum 100 (complete satisfaction). The questionnaire also asks for the respondent's age and sex.

Practice sample

In September 1991 a letter was distributed by all family health services authorities in South Western Region Health Authority to all practices in their areas. The practices were offered the chance to participate in a patient survey, and those that enquired about the survey were told that the first 100 practices to agree to take part would be included.

A contact person (a named general practitioner or practice manager) at each participating practice was sent a questionnaire that sought information including total list size, number, age and sex of practice partners (and whether they worked full time or part time as defined in the NHS contract), training status, fundholding status and whether the practice had a personal, partly personal or pooled list system.

To ensure that the surgery satisfaction questionnaires were administered to patients in a standard way in all the practices, each participating practice was issued with a comprehensive set of instructions. Posters were issued so that practices could inform patients about the survey. Practices were instructed to provide a discreetly placed box for patients to return questionnaires so that patients did not have to hand the completed questionnaires personally to members of staff.

Patient sample

The practices were advised to issue the surgery satisfaction questionnaire at a variety of surgery sessions to ensure that they were completed by a range of patients. In every practice 220 patients

were asked to complete questionnaires. Patients who were aged under 16 years or were too ill to complete the questionnaire were not included in the study. Responses from patients were encouraged by a statement in the questionnaires that confirmed that the questionnaires were anonymous; respondents were asked not to write their names on the forms. The practices returned the questionnaires to the researchers for analysis.

Feedback to practices

Each practice received feedback in the form of graphs for each component of satisfaction, showing the anonymous scores of the other practices to enable them to identify their strengths and weaknesses in comparison with other practices.

Analysis

Data were entered onto *SPSSPC* for analysis. The mean scores of all responding patients in each practice were calculated to produce satisfaction scores for the practice. The sample size was sufficient to ensure a 95% confidence interval of not more than plus or minus two points of the satisfaction scale.²⁵

For each component of satisfaction a multiple regression analysis was undertaken, with the practice scores for each component of satisfaction being the dependent variable and the practice characteristics being the explanatory variables. The explanatory variables were: total list size; mean age of partners; proportion of partners who were women; proportion of partners working part time; whether a training practice; whether a fundholding practice; whether a personal, partly personal or pooled list system; whether the practice had a practice manager; practice response rate to the surgery satisfaction questionnaire; mean age of patients responding in each practice; and proportion of respondents who were women. Thus, in the analysis each practice was considered as one case.

Practice list size, having a practice manager and being a training practice were chosen as explanatory variables because they have been shown to be related to the level of development of general practices, more developed practices being defined as those that provided a wider range of preventive care and clinics, had more staff and undertook more educational and organizational activities.²⁶ Having more patients, having a practice manager and approval for training, were all related to higher levels of practice development.²⁶ In a practice with a personal list system, patients are encouraged to attend the same doctor rather than any doctor with the earliest convenient appointment. The type of list system was included because it may influence continuity of care. This variable was categorical and was included in the regression analysis as a series of binary indicators.²⁵ For each practice the mean age of the patients returning completed questionnaires and the proportion who were women were calculated and used as explanatory variables.

Correlations were sought between the explanatory variables and if two variables were correlated one was omitted from the analysis. For example, since total list size and the number of partners proved to be highly correlated, both being measures of the size of the practice, the number of partners was omitted.

Forward stepwise regression was used to identify the main effects. In order to check for the influence of interactions between variables, selection of interaction effects to include in the model was made using a forward stepwise model with all possible interactions being individually tested (together with their main effects). For example respondents of different ages may have different views on the importance of continuity of care, with the presence of a personal list system being more important to elderly patients than to younger patients. Therefore,

binary indicators were included, computed from the interactions between two variables such as the type of list system and mean age of respondents.

Results

Practice characteristics

Of the 591 practices in the region, 130 (22.0%) expressed an interest in taking part in the study and the first 103 were accepted. Eventually 98 practices completed the survey and returned questionnaires for analysis. Of these, 89 (90.8%) returned completed questionnaires about the practice. The results presented here relate to these 89 practices. The mean of the different response rates of patients to the surgery satisfaction questionnaire achieved in each practice was 81.8% (standard deviation 12.4%), the total number of completed questionnaires available for analysis being 16 015. The characteristics of the 89 practices are shown in Table 1. Training practices and larger practices were over-represented among those taking part, 26.2% of practices in the region being training practices, 14.6% being single handed, and 30.3% having five or more partners (data for 1992).²⁷ However, the mean age of the partners taking part was close to the national mean of 42.9 years.²⁷

Surgery satisfaction questionnaire

The mean score (standard deviation) for each component of satisfaction on the surgery satisfaction questionnaire among the 89 practices was: general satisfaction 70.1 (5.6); accessibility 72.7 (4.6); availability 55.9 (12.0); continuity of care 57.0 (9.1); medical care 67.7 (4.6); and premises 66.4 (12.7). Tables 2 and 3 show the results of the multiple regression analyses.

General satisfaction. The first variable to influence general satisfaction was total list size, satisfaction (mean satisfaction scores for 89 practices) decreasing as the number of patients registered with the practice increased (Table 2). The second variable was a personal list system, the presence of a personal list system being associated with increased satisfaction. As the mean age of respondents increased satisfaction decreased slightly, and also decreased with an interaction between increasing list size and being a training practice, the consequences for satisfaction of

Table 1. Characteristics of the 89 practices using the surgery satisfaction questionnaire to survey patient opinion.

Characteristic	Practice value
<i>Mean (range) of all practices</i>	
Total list size (1000)	7.19 (1.50 to 16.0)
Mean age of partners in each practice (years)	42.4 (35.0 to 59.0)
% of partners who are women	25.3 (0 to 66.7)
% of partners working part time	16.4 (0 to 66.7)
Mean age of respondents in each practice (years)	46.4 (35.9 to 56.4)
% of respondents who are women	68.0 (52.5 to 78.8)
<i>% of 89 practices with characteristic</i>	
Training approved	53.9
Fundholding	13.5
List system operated:	
Pooled	44.9
Partly personal	24.7
Personal	29.2
Practice manager present	94.4
No. of partners:	
1	4.5
2	10.1
3/4	44.9
5+	40.4

Table 2. Results of forward stepwise multiple regression analysis showing explanatory variables for the general satisfaction, accessibility and availability components of the surgery satisfaction questionnaire.

Explanatory variable ^a	Regression coefficient (SE)	Cumulative r^2	Additional % of variance explained
<i>General satisfaction</i>			
Total list size ^b	-0.78 (0.18)***	0.28	28
Personal list system	36.81 (13.30)**	0.36	8
Mean age of respondents	-0.25 (0.25)*	0.40	4
Total list size ^b /training status interaction	-0.77 (0.30)**	0.48	8
Mean age of respondents/personal list system interaction	0.71 (0.28)*	0.52	4
Constant	56.73 (6.55)		
<i>Accessibility</i>			
Total list size ^b	-0.67 (0.13)***	0.22	22
Personal list system	2.12 (0.99)*	0.26	4
Constant	76.82 (1.06)		
<i>Availability</i>			
Total list size ^b	-1.90 (0.33)***	0.43	43
Personal list system	55.78 (24.33)***	0.52	9
Mean age of respondents	-0.31 (0.46)*	0.54	2
Total list size ^b /training status interaction	-1.80 (0.54)**	0.61	7
Mean age of respondents/personal list system interaction	1.04 (0.52)*	0.63	2
Constant	43.89 (12.0)		

SE = standard error. ^aExplanatory variables presented in order of selection. ^bTotal list size in 1000s. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

increasing list size being greater in training practices. The final variable was an interaction between the mean age of the respondents and the presence in the practice of a personal list system, satisfaction increasing as mean age of respondents increased if there was a personal system. These variables accounted for 52% of the variation in scores between practices.

Accessibility. Satisfaction with accessibility decreased as the total list size increased, but satisfaction was increased if the practice operated a personal list system, these variables accounting for 26% of the variance between practices (Table 2).

Availability. Satisfaction with availability was influenced by the same variables as general satisfaction, these variables accounting for 63% of the variation in scores between practices (Table 2).

Continuity of care. The two most important variables influencing satisfaction with continuity of care were the presence of a personal list system, associated with increased satisfaction, and increasing total list size, associated with decreasing satisfaction (Table 3). Being a training practice was associated with decreased satisfaction and as the proportion of respondents who were women increased, satisfaction decreased. There was an interaction between increasing list size and training status, satisfaction increasing in training practices. However, this variable accounted for only 3% of the variance in scores between practices, the separate variables of increasing list size and training status being more important in influencing satisfaction. Finally,

Table 3. Results of forward stepwise multiple regression analysis showing explanatory variables for the continuity of care, medical care and premises components of the surgery satisfaction questionnaire.

Explanatory variable ^a	Regression coefficient (SE)	Cumulative r^2	Additional % of variance explained
<i>Continuity of care</i>			
Personal list system	54.97 (21.17)***	0.25	25
Total list size ^b	-1.47 (0.35)***	0.48	23
Training practice	-10.83 (3.25)*	0.52	4
% of respondents who are women	-0.87 (0.28)*	0.56	4
Total list size ^b /training status interaction	10.0 (0.43)*	0.59	3
% of respondents who are women/ personal list system interaction	0.67 (0.31)*	0.61	2
Constant	79.71 (10.15)		
<i>Medical care</i>			
Total list size ^b	-0.70 (0.12)***	0.24	24
Personal list system	34.06 (11.38)**	0.31	7
Mean age of respondents	-0.29 (0.21)*	0.36	5
Mean age of respondents/ personal list system interaction	0.67 (0.24)**	0.42	6
Mean age of partners	0.24 (0.11)*	0.46	4
Constant	43.61 (6.48)		
<i>Premises</i>			
Total list size ^b	-0.99 (0.40)*	0.07	7
Constant	73.56 (3.21)		

SE = standard error. ^aExplanatory variables presented in order of selection. ^bTotal list size in 1000s. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

there was an interaction between the proportion of women respondents and the personal list system variable, satisfaction increasing as the proportion of women respondents increased in practices with a personal list system. All these variables accounted for 61% of the variation in scores between practices.

Medical care. The first variable influencing satisfaction with medical care was increasing total list size, associated with decreasing satisfaction (Table 3). A personal list system was associated with increased satisfaction, but satisfaction decreased slightly as the mean age of respondents increased. However, there was an interaction between increasing mean age of respondents and the presence of a personal list system, with satisfaction increasing as the mean age increased provided there was a personal list system. It also increased as the mean age of the general practitioner partners increased. These variables accounted for 46% of the variation in satisfaction with medical care.

Premises. Total list size was the only variable influencing variations between practices in the scores for satisfaction with premises, accounting for only 7% of variation (Table 3). Increasing list size led to decreasing satisfaction.

Discussion

The practices included in this study of patient satisfaction were volunteers from one health service region and, although the number of practices taking part was relatively large, single-handed practices were under-represented and larger practices and train-

ing practices were over-represented. This suggests that the participant practices were a relatively developed group and it should be acknowledged that in less developed practices other factors may also influence patient satisfaction. Moreover, the respondents to the surgery satisfaction questionnaire were all patients attending practices and it is possible that patients who do not attend have different views. Nevertheless, the response rates to the patient satisfaction and practice questionnaires were high, and the surgery satisfaction questionnaire has demonstrated reliability and validity for use with the types of patients included in this study.²³

No previous study has reported the use of a robust measure of patient satisfaction in a large number of practices to identify the effect of different practice characteristics on patient satisfaction. A distinct pattern of patient preferences emerged from the findings and, therefore, we believe that this study provides important information about patients' opinions and has implications for the ways in which practices should be organized. The variables were able to account for between 26% and 63% of the variation in scores for all the components of satisfaction other than satisfaction with premises. This finding is not surprising as perceptions of premises are unlikely to be influenced by factors such as the age of the general practitioner partners, the proportion of partners who are women or the type of list system in operation.

The most important variables influencing patient satisfaction were total list size and the personal list system variable. Total list size was the most important variable for general satisfaction and satisfaction with accessibility, availability, medical care and premises. A personal list system was the most important variable for continuity of care and the second most important variable for general satisfaction and satisfaction with accessibility, availability and medical care. Increasing list size was associated with decreasing satisfaction and the presence of a personal list system was associated with increased satisfaction. Both the list size and type of list system may influence the availability of care from a family doctor. In larger practices, compared with smaller practices, doctors have greater opportunity to set time aside from routine consultations to provide specific sessions such as clinics for defined patient groups, to undertake activities outside the practice or to work on a part-time basis, and so may reduce their availability to patients. Moreover, the number of staff such as receptionists and practice nurses is greater in larger practices compared with smaller practices so that patients may be less likely to encounter staff familiar to them.

The importance to patients of personal care was re-emphasized by the relationship found between patient satisfaction and the presence of a personal list system. The information about the list system sought from practices was categorized into three levels, a pooled list only, a partly personal list system or a personal list system. Systems which were only partly personal were not sufficient to benefit satisfaction. Certain patient groups appeared to place increased importance on a personal list system, a higher mean age of respondent being associated with higher levels of general satisfaction and satisfaction with availability and medical care in practices with personal list systems. Other surveys of patient satisfaction have shown that older patients are more likely to express satisfaction,²⁸ but the findings of this study suggest that the relationship between age and reported satisfaction is more complex and is mediated by the preferences of older patients and the type of service that they receive.

Previous studies have not shown a clear relationship between sex of respondent and satisfaction²⁸ and the present study in general supports this finding although in a specific component of care — continuity — a higher proportion of women respondents

was associated with decreasing satisfaction in the absence of a personal list. Among the factors that may explain this finding are that adult women patients may attend the practice more frequently than men²⁹ and are also more likely to accompany relatives when they attend, especially children. Regular consultations may both increase the perceived value of personal care and permit increased experience of the policy of the practice towards continuity and the appointment system.

Levels of satisfaction with medical care increased as the mean age of the general practitioner partners increased. The particular characteristic of older general practitioners that might explain this finding is not clear. It may be that older doctors convey more experience and confidence, or that the longer the general practitioner has been with the practice the longer the relationship between doctor and patient and thus the greater the mutual understanding. If this is so, this finding may be a further example of the importance placed by patients on personal care.

Satisfaction with continuity and availability was decreased in training practices, and being a training practice exacerbated decreases in general satisfaction and satisfaction with availability as list size increased, although this interaction ameliorated the effect of increasing list size on satisfaction with continuity. The presence of a succession of registrars (trainees) in the practice for limited periods of time will reduce continuity of care, and the commitment of the trainer to teaching sessions will reduce availability. Training practices are selected and regularly reviewed on the basis of a set of criteria concerned with teaching and the qualities of the trainer, but characteristics of the practice are also assessed, such as the quality of medical records, clinical activities and facilities and practice organization. Therefore, the training practice selection criteria encapsulate many of those features that could be viewed as best practice. Indeed, training practices and larger practices have been shown to be more developed than non-training practices and smaller practices in terms of the provision of a wider range of clinical services, more staff and more organizational features such as computers and recall schemes.²⁶

The views of patients and general practitioners about the best type of general practice evidently differ. General practitioners have been seeking to develop practices to provide comprehensive and effective clinical services from well-equipped premises staffed by multidisciplinary teams. In contrast, this study shows that patients prefer a personal service. Given the current approach to practice organization, patients are more likely to obtain a service that meets their requirements if they attend small, non-training practices that operate personal list systems. However, personal care and effective, modern general practice must not be seen as alternatives. It is of critical importance that practices are organized in such a way as to provide effective technical care in a manner that is acceptable to patients.

The most important immediate step that practices can introduce to meet the requirements of patients is a well-organized personal list system, although there should be provision for those patients who wish to see another doctor in the practice.³⁰ A partial personal list system had much less benefit in terms of patient satisfaction and is not an adequate alternative to an open list system. Large practices and those approved for training face particular problems. They should consider not only personal lists, but also personal teams, in which the practice is divided into a number of smaller units. Patients will then become familiar with a smaller number of receptionists, practice nurses and other team members. Practitioners who wish to undertake work outside the consulting room or to work part time should take steps to ensure that this has the minimum of impact on continuity of care and availability to patients. Practices should also consider monitoring the views of their patients using valid and reliable measures.

Indeed, this study emphasizes the importance of taking into account the views of patients when services are planned or changed. The growing role of patient surveys in clinical audit is to be encouraged in order to ensure that changing patterns of practice lead to increased rather than decreased patient satisfaction.

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Public health surveillance in France

THE introduction of the Minitel communication system in France opened the door to a number of initiatives in medical communication. In particular a French communicable disease network was established. General practitioners belonging to the network report new cases of a variety of illnesses on a regular basis. Chauvin and Valleron sought the opinion of 280 contributing general practitioners and of 280 general practitioners who had made some contact with the network but did not actually belong to it. Using a self-administered questionnaire and a visual analogue scale across the range from very interesting to not at all interesting, they were asked about their attitude to the surveillance of 17 communicable diseases.

All the 280 contributing general practitioners and 256 (91%) of the contact group returned questionnaires — a remarkable response rate. Some small differences were evident in the answers given by the two groups, from different age groups and from doctors in urban and rural locations but none was large enough to be considered important. The four conditions considered to be most important were viral hepatitis, human immunodeficiency virus (HIV) serology, tuberculosis, and sexually transmitted diseases; the four least important were diphtheria, chickenpox, whooping cough and scarlet fever. The results cannot be considered in isolation from an understanding of the other sources of information available in France about these conditions, but the emphasis on diseases with a high social interest is particularly noticeable.

A motivation question (single choice of five alternatives) disclosed that 40% of 536 general practitioners wished to contribute to public health work and that 25% had an interest in epidemiology. While I have reservations about the validity of general practitioner opinion surveys, the results left me wondering what our own sentinel practices in this country think about public health surveillance and epidemiology.

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Source: Chauvin P, Valleron AJ. Attitude of French general practitioners to the public health surveillance of communicable diseases. *Int J Epidemiol* 1995; 24: 435-440.

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